

What is claimed is:

1. A magnetic data embedding apparatus having a checking function comprising:

a spindle motor having a shaft;

a master magnetic disk with magnetic data containing servo information written on at  
 5 least one surface thereof and a plurality of object magnetic disks in which information is  
 written, the master disk and the object magnetic disks being stacked and integrally installed  
 on the shaft of the spindle motor;

a plurality of rotary positioners disposed around the magnetic disks, each stacking and  
 holding integrally and pivotally a plurality of magnetic heads, the plurality of rotary  
 10 positioners including first and second write-dedicated rotary positioners, and a checking-  
 dedicated rotary positioner, the first write-dedicated rotary positioner having a first read  
 magnetic head and a plurality of first write magnetic heads, the first read magnetic head  
 reading out the magnetic data on the master disk, the first write magnetic heads including a  
 first write magnet head corresponding to each object magnetic disk surface of the object  
 15 magnetic disks stacked on the shaft of the spindle motor for accessing said each object  
 magnet surface, the second write-dedicated rotary positioner having a second read magnetic  
 head and a plurality of second write magnetic heads, the second read magnetic head reading  
 out the magnetic data on the master disk, the second write magnetic heads including a second  
 write magnet head corresponding to each object magnetic disk surface of the object magnetic  
 20 disks stacked on the shaft of the spindle motor for accessing said each object magnet surface,  
 wherein each of the first write magnetic heads writes the magnetic data that is read out by the  
 read magnetic head disposed on the master magnetic disk or magnetic data made from the  
 magnetic data that is read out from the master disk (hereinafter the two types of magnetic data  
 are collectively referred to as embedded data) onto said each first object magnet surface of the

object magnetic disk to which the first write magnetic head corresponds, in such a way that the second write magnetic head corresponding to the same surface of the object magnetic disk and writes the embedded data in parallel while sharing a range of tracks,

the plurality of rotary positioners further including a checking-dedicated rotary

5 positioner stacking and holding integrally and pivotally a first type checking head and second type checking heads, the first type checking head reading out the magnetic data on the master disk for checking, and each of the second type checking heads being provided corresponding to one surface of the object magnetic disks for checking and reading out the embedded data corresponding to the magnetic data that is read out from the master disk by the first type  
10 checking head; and

respective comparison means, corresponding to each surface of the object magnetic disks for comparing the embedded data read out from the surface of the object magnetic disk by the second type checking head with the magnetic data that is read out by the first type checking head simultaneously with writing operations of the first and second write magnetic  
15 heads.

2. A magnetic data embedding apparatus having a checking function according to claim 1, further comprising an overwriting means that overwrites onto the object magnetic disks, the embedded data corresponding to the magnetic data that is read out by the first type checking  
20 head, through the second type checking heads disposed on the surfaces of the object magnetic disks when the comparison means detects an inconsistency, simultaneously with the writing operation of the first and second write magnetic heads.

rotary positioners rotary positioners

3. A magnetic data embedding apparatus having a checking function comprising:

a spindle motor having a shaft;

a master magnetic disk with magnetic data containing servo information written on at least one surface thereof and a plurality of object magnetic disks in which information is

5 written, the master disk and the object magnetic disks being stacked and integrally installed on the shaft of the spindle motor;

a plurality of rotary positioners disposed around the magnetic disks, each stacking and holding integrally and pivotally a plurality of magnetic heads, the plurality of rotary positioners including a write-dedicated rotary positioners, and a checking-dedicated rotary  
10 positioner, the write-dedicated rotary positioner having a plurality of read magnetic heads and a plurality of write magnetic heads, the read magnetic heads reading out the magnetic data on the master disk, the write magnetic heads including plural write magnet heads corresponding to each object magnetic disk surface of the object magnetic disks stacked on the shaft of the spindle motor, for accessing said each object magnet surface, wherein for each of the object  
15 magnet disk surfaces of the stack, each of the write magnetic heads corresponding thereto writes in parallel while sharing a range of tracks magnetic data read out by the read magnetic heads disposed on the master magnetic disk or magnetic data made from the magnetic data that is read out from the master disk (hereinafter the two types of magnetic data are collectively referred to as embedded data),

20 the plurality of rotary positioners further including a checking-dedicated rotary positioner stacking and holding integrally and pivotally a first type checking head and second type checking heads, the first type checking head reading out the magnetic data on the master disk for checking, and each of the second type checking heads being provided corresponding to one surface of the object magnetic disks for checking and reading out the embedded data

corresponding to the magnetic data that is read out from the master disk by the first type checking head; and

5        respective comparison means, corresponding to each surface of the object magnetic disks for comparing the embedded data read out from the surface of the object magnetic disk by the second type checking head with the magnetic data that is read out by the first type checking head simultaneously with writing operations of the write magnetic heads.

10       4.    A magnetic data embedding apparatus having a checking function according to claim 3, further comprising an overwriting means that overwrites onto the object magnetic disks, the embedded data corresponding to the magnetic data that is read out by the first type checking head, through the second type checking heads disposed on the surfaces of the object magnetic disks when the comparison means detects an inconsistency, simultaneously with the writing operation of the first and second write magnetic heads.